AMENDMENTS:

CLEAN VERSION OF AMENDED SPECIFICATION AND CLAIMS

IN THE SPECIFICATION:

Please delete the paragraph on page 1, lines 4-5, and replace it with the following paragraph:

B1

This Application claims priority to PCT/US98/18531, filed September 3, 1998, and to Provisional Patent Application Serial No. 60/057,929, filed on September 4, 1997, now abandoned, which is herein incorporated by reference in its entirety for all purposes.

Please delete the paragraph on page 28, lines 3-7, and replace it with the following paragraph:

B2

Detailed assays for inhibitors or enhancers of interactions between molecular motor components or cytoskeletal components generally are described in copending application USSN 60/057,895 entitled "High Throughput Assays for Detecting Modulators of Cyotskeletal Function" filed on September 4, 1997, naming James Spudich, Ron Vale, and Daniel Pierce as inventors.

Please delete the paragraph on page 30, lines 20-30, and replace it with the following paragraph:

B3

The arginine tags of this invention can also be used to purify the moiety (*e.g.*, polypeptide(s)) to which they are linked. Specifically, the arginine tag can be used in conjunction with virtually any anion or cation exchange resin. (It will be appreciated that an anion resin will be used to capture other species and exclude the arg-tagged moieties.) Because the arginine tags are more charged than other tags in current use, the arginine tags are expected

to provide greater affinity to cation resins resulting in more effective purification. Suitable anion and cation exchange resins are well known to those of skill in the art and are commercially available. Cation exchange resins, for example include, but are not limited to, carboxymethylcellulose, while anion exchange resins include, but are not limited to, DEAE cellulose, DEAE SEPHAROSE gel filtration ion exchange media, heparin, and the like.

Please delete the paragraph on page 35, line 16 to page 36, line 2, and replace it with the following paragraph:

All of the expressed proteins carry a vector-encoded tag of a hexa-histidine sequence for purification by metal chelate affinity chromatography on a Ni^{2+}/NTA matrix (Qiagen, Santa Clarita, CA). The cells were grown at 37°C by shaking in LB-medium containing 25 mg/ml Kanamycin. At an OD_{600} of 0.8 the cells were induced with 1 mM IPTG, and 5h later, they were harvested by centrifugation at 6000xg for 10 min. The cells were lysed by addition of lysozyme at a concentration of 100 mg/ml and 10 % (v/v) of 1 % TRITON X-100 non-ionic detergent octylphenol ethylene oxide condensate in 50 mM Tris-HCl pH 7.5, 50 mM KCl, 1 mM EDTA. After incubation for 30 min on ice, $MgCL_2$ was added to a final concentration of 40 mM. The liberated DNA was digested by adding 0.2 mg DNaseI per ml lysate. The lysate was incubated for 15 min on ice and then centrifuged at 30,000xg for 40 min. The clear supernatant was dialyzed against buffer containing 10 mM Hepes/NaOH pH 7.4, 50 mM NaCl, and then applied to a Ni^{2+}/NTA column. Weakly bound proteins were eluted with 10 mM imidazole pH 8.0. The His-tagged proteins were eluted with 500 mM imidazole in the case of GFPH6 and with 500 mM imidazole, 500 mM NaCl for all the other variants (the Arg-tag caused a strong ionic interaction with Ni^{2+}/NTA matrix). The eluted proteins were dialyzed against buffer containing 10 mM Hepes/NaOH pH 7.4, 50 mM NaCl, 50 % glycerol and stored at -20°C. The purity of the recombinant proteins was estimated by SDS-polyacrylamide gel electrophoresis and found to be greater than 95%.

Please delete the paragraph on page 36, lines 17, and replace it with the following paragraph:

Mica sheets were cut into pieces of 5x5 cm^2 and freshly cleaved immediately before use. Droplets of protein solutions (GFPH6, GFPR6, GFPH6R6) at a concentration of 10 mg/ml were applied onto the previously unexposed, hydrophilic surfaces resulting in aqueous films of approximately 4 cm^2 in size. After incubation for 5 min, the mica sheets were washed with 10 ml of water. The central parts, 1 cm^2 in size, were then cut out to ensure that no contaminants from the edges could falsify the subsequent analyses. For each data point four surfaces were analyzed and the readings were averaged. These surfaces, stored separately in EPPENDORF microcentrifuge tubes, were then subjected to consecutive one-min washing steps with 400 ml 10 mM Hepes/NaOH buffer pH 7.4 containing increasing concentrations of salt with different mono- and bivalent cations (50, 125, 250 mM, Na^+, K^+, Mg^{2+}). For quantitation of active, adsorbed GFP, the eluates were collected separately and analyzed by fluorescence measurement at 509 (excitation at 395 nm) using an SLM8000 spectrophotometer (Aminco, Silver Spring, MD) and GFP of known concentration as standard.

IN THE CLAIMS:

Please cancel claims 14-55.

Please amend the following claims as indicated:

1. (Amended once) A method of attaching a moiety to a surface of a layered silicate, said method comprising the steps of:

covalently attaching said moiety to an arginine tag; and

contacting said arginine tag with said surface of said layered silicate.

6. (Amended once) The method of claim 1, wherein said method further comprises contacting said surface of said layered silicate with a solution containing a sodium salt in a concentration sufficient to remove molecules bound to said surface of said layered silicate by non-specific ion exchange.